
LASER MARKSMANSHIP TRAINING SYSTEM (LMTS) SMALL SUITE

**Training Category/Level Utilized:**

Basic weapons/Level 3

Logistic Responsible Command, Service, or Agency:

PEO STRI

Source and Method of Obtaining:

Available through local TSC.

Purpose of Trainer:

The Laser Marksmanship Training System (LMTS) will simulate weapons training events which lead to live fire qualifications for individual and crew weapons. LMTS will be used primarily as a unit/individual, indoor/outdoor, multi-lane, small arms crew served and individual marksmanship training device. It uses the individual soldier's personal issued weapon and will allow units to conduct individual and sustainment marksmanship training using biological and chemical protective equipment. Since it is

light, transportable, uses self sustained power sources and requires no fixed facilities support, it is also idea for training scenarios in the field.

The LMTS Small Suite will support 2 rifle lanes plus one machine gun lane and is optimized for battalion Basic Rifle Marksmanship training.

Functional Description:

The LMTS is a system that provides quantitative feedback in place of the “Dime/Washer” exercise, focusing on the four fundamentals of marksmanship (steady position, sight alignment and picture, breathe control and trigger squeeze). It provides real time feedback in all seasons on the soldier’s assigned weapon.

The LMTS uses Class IIIA Laser Transmitters to simulate the fire capability of pistols, rifles, and machine guns. The Laser Transmitters attach to the barrel of the weapon and have adjustments for windage and elevation. Soldiers can dry fire, use standard blanks or SafeShot blanks with Blazer upper receivers to activate the laser transmitter. The Zero Reflective target is used to zero the weapons and laser transmitter. It also provides training for correct sight picture and alignment. The laser detectors are located in the TR700 and TR900 targets and are optimized for use at 25 meters however these will work accurately from 6 inches out to 50 meters for the TR700 target and from about 6 inches out to about 75 meters for the TR900 target. The TR700 target registers and counts the number of hits on a numerical counter up to 99. The TR700 uses target silhouette masks in 100, 200, or 300 meter sizes to simulate the target size and scale. The TR900 target is connected via cable to a scoring device loaded with software, which records the time and placement of shots on the target by the laser transmitter upon being “fired” by the soldier. The target comes with overlays to simulate various distances for the soldier’s point of aim. The scoring device displays the time of shot, time between shots, placement of shots, the shot order (1,2,3....), center of shot group and shot dispersion. Up to ten (10) targets can be connected to a single scoring device.

The Machine Gun Training System target is a replica of the exact 10 meter qualification target used by the US Army. The target registers hits from the laser transmitter mounted on the machine gun and requires only 10 meters for operation. The target comes enclosed in its own carry case, which is portable and can be set up in a variety of locations to meet machine gun training requirements. With either standard blank ammunition or the addition of the SafeShot blank firing replacement barrels for the M-249, M-240, and the M-60, Training Tasks 1-8 and Qualification Tasks 9 and 10 can be met, providing full recoil and instant feedback. The MGTS gives shooters the ability to observe hits and a near miss, adjust fire, and operate with speed, and allows trainers to observe the shots in real time, save the session for later review or printed as a hard copy reference. Up to 10 targets may be linked to one computer. The MGTS includes all cables and software and is stored in its own travel storage case.

Physical Information:

The LMTS Small Suite is comprised of the following components:

One 460 System consists of two TR900 targets, two M16 25m/15m overlays and two M9 overlays, two MP400 lasers, two ‘AA’ batteries, two 5.56 mandrels, two M9 mandrels, one scoring device and cables, control box, BL640 Long cable and BL650 Daisy chain cables, 2 power strips, software and Instruction manual.

Two 130 (1 target) Systems consisting of one TR700 target, military mask set, power supply, one 5.56 mandrel, one 9mm mandrel, one MP400 laser transmitter, one ‘AA’ battery, 130 Instruction manual.

One Machine Gun Training System Package (MGTS) comes in one transit case with MP400 Laser with barrel brackets for M249, M240 and M2; 30m main cable, 3m Daisy Chain (linking) cable, power supply, software CD and MGTS Instruction manual.

One LMTS Accessory Kit consists of Laser Alignment Device (LAD) 5.56 with case, Laser Alignment device Multi-caliber, two 25M Zero Reflective targets, and two LTA380 M9 Laser Transmitters 12volt power converter, power strip, one 100ft extension cord, three 50ft extension cords, and 6 ea 25ft extension cords.

Equipment Required, Not Supplied:

Soldiers issued weapon (M9, M16/M4, M249).

Special Installation Requirements:

None

Power Requirements:

One ‘AA’ battery for each MP400 laser transmitter; four ‘AA’ batteries or 110V/50 Hz power supply for TR700 target; 110V/50 Hz for each TR900 target, 110V/50 Hz for the MGTS; 110V/50 Hz for the laptop scoring device.

Applicable Publications:

460 System Instruction Manual

130 System Instruction Manual
MGTS Instruction Manual

Reference Publications:

460 System - FM 3-22.9 (FM 23-9); Exercises 1-4;
MGTS – Training Tasks 1-8 and Qualification tasks 9 & 10

Training Requirements Supported:

Primary Marksmanship Instruction, Remedial (on-site) marksmanship instruction during live fire.